AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 16 with the following:

LCD flat-panel displays have obvious advantages over desktop CRTs. For example, LCDs are generally thinner thus requiring less space, and relatively lighter, e.g. 11 lbs vs. as much as 50 lbs or even more. Due to light weight and small form factor LCD displays can be flexibly mounted in relatively small spaces. Moreover, LCD displays use nearly 75 per cent less power than CRTs. Other advantages of LCD displays include the elimination of, for example, flicker, and edge distortion.

Please replace the paragraph beginning on page 2, line 23 with the following:

Thus, one important ~~problems~~ problem associated with LCD displays is the dependency of image quality on the relative angel between the viewing axis and the display axis, or simply, the viewing angle as illustrated in FIG 1A. Desktop LCD display 100 may be set at some initial angle on a desktop such that display unit surface 110 is preferably in coplanar alignment with plane 111 as seen from a side view. Accordingly, a viewing position 120 may result in a series of relative viewing angles θ0 121, θ1 122, and θ2 123 between viewing position 120 and various points on display unit surface 110 relative to plane 111. Problems may arise associated with image quality at various viewing angles θ0 121, θ1 122, and θ2 123 such that portions of an image displayed on an LCD display may appear different at points on display unit surface 110 corresponding to viewing angles θ0 121, θ1 122, and θ2 123 relative to an observer at a fixed viewing position 120.

Please replace the paragraph on page 7, line 3 with the following:

Thus in accordance with one exemplary embodiment of the present invention, the viewing position may be established by any of the above described methods. A respective correction factor, which is preferably different for each pixel, may be applied to each of the corresponding pixel level values based on [[a]] respective viewing angles associated with each pixel location and the established viewing position. The different correction factors may be applied to each pixel based on establishing different non-linear correction curves corresponding to the locations of each pixel. It will be appreciated that the different non-linear correction curves relate to range of possible pixel level values, e.g. 0 to 255 for an 8-bit gray scale image, to a corresponding range of corrected pixel level values associated with the viewing position. As will be described in greater detail hereinafter, the non-linear correction curves preferably adjust the mid-level pixel values to corrected mid-level pixel values, while keeping the end values the same. It should be noted however that end values may also be changed without departing from the scope of the invention as contemplated herein.

Please replace the paragraph on page 7, line 18 with the following:

In another exemplary embodiment, a calibration pattern may be displayed on the display screen and user inputs may be received associated with pixel locations. The user inputs may be in response to the display of the calibration pattern. For

example, the calibration ~~patter~~ pattern may be displayed in various parts of the display and user input received for each part of the display and the like. Thus the viewing position may be established through the calibration process and non-linear correction curves established for the pixel locations relative to the established viewing position and, again, based on the received user inputs. The user inputs may further be stored with an association to a user identity. When a user input such as, for example, a user login or the like, or any user input from which a user identity may be associated, is then processed, the user identity may be obtained along with stored user inputs, e.g. information stored from a previous calibration session or preferences registration, associated with the user identity. The viewing position may then be established along with non-linear correction curves for each pixel location relative to the established viewing position based on the user inputs. Thus, for example, a parent and a child may provide different user inputs for a calibrated and/or preferred viewing position, which user inputs may be stored along with an association to the user identity and those inputs called up during a subsequent user identification process such as, for example, a user login or the like.

Please replace the paragraph beginning on page 8, line 18 with the following:

In accordance with various embodiments, correction factors may be applied by determining, for example, if the viewing position and location of each pixel corresponds to a reference location, for example, obtained during a calibration procedure and, if no correspondence is determined, using a first reference location and a second reference location to arrive at an interpolated correction factor. For

relative orientation, if the changed relative orientation does not ~~corresponds~~ correspond to a reference orientation, a first reference orientation and a second reference orientation may be used to arrive at an interpolated correction factor. It should further be noted that a correction factor may be determined and applied by applying an analytical function to generate the correction factor for correction factors based on pixel location and those based on location and relative orientation.

Please replace the paragraph on page 9, line 3 with the following:

In accordance with still another exemplary embodiment of the present invention, one or more sensors may be provided to indicate one or more of, for example, display orientation and viewing position. The one or more sensors may include, for example, a display orientation sensor, a viewing position sensor, or a viewer feature tracking sensor. The viewing position sensor, for example, may include a sensor for sensing the position of a remote device coupled to the viewer such as for example, a device attached to a pair ~~if~~ of glasses or the like. The viewer feature tracking sensor, for example, may ~~includes~~ include a camera for generating an image associated with a viewer, and a means for analyzing the image to track one or more features associated with the viewer such as eye position as could be tracked using image recognition software, or the like running on a processor.

Please replace the paragraph beginning on page 9, line 14 with the following:

In accordance with alternative exemplary embodiments, one or more reference pixel level values associated with one or more reference pixel locations of the display screen may be measured relative to one of the one or more different viewing positions and a reference display orientation and each value mapped to a corrected pixel level value associated with the one of the one or more different viewing positions and the reference display orientation. Interpolation may be used to obtain corrected values for one or more non reference pixel level values associated with one or more non-reference pixel locations. Each of the pixel level values may be mapped to additional corrected one or more pixel level values associated with corresponding different ones of the one or more viewing positions and the reference display orientation and, after detecting that the one of the one or more viewing positions has changed to a different viewing position relative to the reference display orientation, the pixels may be displayed at the corrected pixel level value associated with the mapping between the additional new pixel level value and the different viewing position and the reference display orientation. In addition, a correction factor may be applied to a remaining one or more non-reference pixel level values based on a relative location between the remaining one or more non-reference pixel level values and the one or more reference pixel locations. Alternatively, an analytical function may be applied to the remaining one or more non-reference pixel level values.

Please replace the paragraph beginning on page 12, line 5 with the following:

As can be seen in FIG 4, a computer display system 400 is illustrated including display surface 410, LCD driver output section 420, LCD driver input section 430, correction module 450, processor 460, and memory 470. LCD driver input section 430 may receive display signals 431, for example from a graphics application running on processor 460, or may generate them based on graphics information generated from an application and may include a frame buffer or the like. Display signals 431, which may be considered "raw", that is, uncorrected and likely to be distorted based on viewing angle as previously described, may be transferred to correction module 450. It should be noted that correction module 450 may contain one or more correction curves corresponding to different portions of display surface 410 as will be described in greater detail hereinafter. Correction curves may be stored in memory 470 or locally in, for example, a resident memory module (not shown) which is incorporated into correction module 450. It should also be noted that correction curves may be generated by an analytic function which may be stored in memory 470 or which may be programmed , for example, to run on processor 460. Pixel display signals 431 may be operated upon by correction module 450 to produce a corrected set of display signals 451 to be output to LCD driver output section 420. Correction may be accomplished preferably using, for example, look up tables or modified pallets which may be sorted in memory 470 and indexed ~~into~~ based on one or more uncorrected pixel values and may further be associated with one or more correction curves, or alternatively correction may be accomplished using real time correction processes which may be, for example, in the form of software processes executing on processor 460 or a local processor associated with correction module 450. LCD driver 420 may generate actual device display signals

421 which drives individual display elements 405 of display surface 410. It should further be noted that display elements 405 may be any one of a variety of display technologies such as, for example, twist nematic (TN) technology or the like LCD technology as is now or will be known and used in the art. It should still further be noted that while correction module 450 is illustrated as being positioned between LCD driver input 430 and LCD driver 420 it may be implemented in a number of alternative positions within computer system 400 for generating corrected display signals. For example, correction module 450 may be placed after LCD driver 420, or between LCD driver 420 and individual display elements 405. Alternatively, correction module 450 may be placed prior to LCD driver input 430 wherein correction values may be generated, for example in an application running within the computer's operating environment. Alternatives for correction module 450 may, depending on its placement within the system, include but are not limited to implementation in hardware as part of, for example, a graphics adapter, partial implementation in hardware and partial implementation in embedded software, software implementation within an operating system or in an application designed for execution within the operating environment of, for example, a notebook computer.